Menlo Park Notebook #191 [N-81-01-21]

This is one of six notebooks that were probably begun on January 10, 1881. It contains essays and notes by Edison and Edward H. Johnson on gas lighting and electricity, which appear to be related to Edison's proposed book on electric light and power. (See Menlo Park Notebook #184.) There is also a draft of a letter from Edison to Uriah H. Painter asking him to obtain publications of the Bureau of Statistics, including industrial statistics from the new census. A note indicates that the letter was written on January 21, 1881. The label on the front cover is marked "notes & mem. of phrases." The book contains 284 numbered pages. The pagination is irregular; some page numbers are duplicated while others are missing.

Blank pages not filmed and missing page numbers: 6-7, 28-229, 231-249, 251-261, 263-281, 283.

LIBRARY OF THE

BOARD OF PATENT CONTROL,

120 BROADWAY, NEW YORK.

From Library
44 Park St. N.Y.

May 1, 1896

Opposition to Gas –

= Objection on the score of shutting off arc lights at one – what would become of Gas there being no reservoir

Note Shion suggests the reply to this, Shows the Gas Company to have had his opinion as ill, digested as Swann – 1st series – Not a practical Man – ~~Sp~~ ~~Pamphlet~~

Practical

"Operation on the ~~Gas~~ ~~Gas~~ ~~Works~~ Manufr. & Distribution of Coal Gas"

~~Page 49~~

Page ~~18~~

Quote from above work
a Ref to proof of Priest,
white of Gas —
Note Quadrupy 4 Edition Lib
Page 20 ~~Edition~~
~~the Paragraph~~

~~Conclusions in Regard to~~
~~Earth~~

Information

Gas 1st applied to useful purpose of lighting by Wm Murdoch Ayrshire Eng -
Discov to in 1792
applied (this House) 1797
Public Display 1802

1st Lighting of Streets by Gas Pall Mall by Winsor 1807
~~Westminster Bridge House~~

1st Public Co formed in 1810 in London - by F.A. Winsor "Gas Light & Coke Co"

"Even the best Engineers at ~~the time~~ thought that ~~to~~ operate a Locomotive it was necessary to toothed driving wheels running on toothed rails and innumerable patents were taken out & schemes proposed for overcoming this imaginary difficulty" Chambers Encyclopa.

"It is shown in this as in the analogous case of steamships that the world may remain sceptical ~~long~~ of an invention long after it has been practically established" (Sir Wm Cavail -" PR in Chambers Ency)

See Newbigging handbook pgs 139 also 121 + 120 = Size of pipes requisite to pipe a house without different lights — then get Morris Tasker's price list and get cost to ample house — then do same on our System, then show that yearly increase in gas Consumption is so much (get from Phila + Lond Gas report + assume it for all Cities) + thus show annual saving that will accrue to public —

For. Electric Engs book -

Copy handy rules newbegging
Handbook page 145 =

ditto. Loss light by globes.
144 = of newbegging

also table = newbegg-
p 151 - comparative cost
different Illuminat -
adding on Kerosene.
This table also to go in
prospectus book
~~substitute~~

Prospectus Book -

Vitiating Effects of ill agents.
p 152 - Newbigging Handbook -

Also Salubrity - page 152
Newbigging

"Structural Value" has reference to the amount of Capital expended upon works in their construction.
"Commercial Value" is the value of the net annual average profits reckoned on a number of years which a firm or Co can make by the use of the works.
Newbiggins 169 -

709

Numbiggung 169 = Good

The average cost of gasworks in provincial towns about £1 per head of population in very large towns amount to more, and in small town want as much that sum.

Average cost gasworks per million cubic feet gas produced per annum is from £700 to £900.

Population per mile of main is usually 2000 people in densely populated towns will rise to 3000 people, but in fashionable places where houses are far apart population per mile of main will fall below 1000.

Average consumption gas per mile of main is from 2¼ to 2½ million cf per annum

E.L. Engineer Hand Book

A good collector will deliver on an average 400 gas bills per day

Books required in system:

General Ledger.
" Cash Book
Consumers Ledger
Large Consumers Ledger, handier to keep this by themselves

Removals Book - In this book is kept an account of all changes residence consumers during each quarter = the substitution meters ~~Consum~~ Candle power used by temporary consumers: this book prevents confusion by substitution meters in reg registers

BOE

Daily Receipt book (cash)

In which are entered amount
Each separate payment made
to Co on account. Light p

Bad debt book – record of bad
debts.

Balance book:

See 171 New-Begging –

The amount of gas consumed in London for street lighting is less than 10 per cent of total sales (see p. 4)

In Salford Eng. only 6 or 7 per cent but you add large public works then wont come to 10 p.c.

get other data on this subject,

Thos Newbigging President of the Manchester Sect Institution of Gas Engineers says that the Council computation have to Expended on gas undertakings in the United Kingdom no less than £60 000,000. Represents an investment of not less than £110,000,000.

Get statistics & notes to make up this -

The following enumeration

opposed RR.

ditto Steamboats.

Atlantic Cable

Telegraph

Bessemer

Gas.

~~Cable~~ Light

& other industries

4.000.000.
390 000
4,39 0000
17.216000
21.606000
204 000 000
1,206,000

3.400 000

(6,30

Miscellaneous

Quote from Pamphlet
"A Treatise on the Science
Practice of the Manufe
& Distribution of Coal Gas
Page 28.

"The indispensable requirements
for the manager - or more properly
speaking, Engineer, of such
an undertaking were good
Mechanical Knowledge and Skill
some acquaintance with Physics
generally - an inventive mind
together with a considerable Energy
& perseverance. No mean
combination of qualities
at any time, but at
that period exceedingly rare

And unfortunately for the
ultimate success of the Co the directors
did not understand these
qualifications & the exercise
in their Engineer - So Our Choice
for that post fell on Gilham
a Chemist to be aided
by Mr Gas Fitter & Practical mind
- Some Reason may be assigned
for the appointment of the
first but it must be doubtful
whether the reasons given
of Economy & Activity justify the
of which consisted in
the Co the Gas Works of Germany"

Applyt Telephone in Gilham's

3 Light.	152 403	
5 "	132 920	41 6.893
10 "	131 570	82 240
20	82 248	49 913 3
30	27,810	
45	21 330	
60	13.680	
100	32 800	
150.	68 00	500
200	2000	133
300	6300	
500	5500	
1500	3000.	
2000.	4000	
4000.	16,000	
	215,260	
	82 240	
	133,020	

21 / 500 light / 630 -

1 / 200 light / 200.

3 Light

1 / 500 light / 5500.

50.801 / 3 / 152403

26584 / 5 light / 132,920,

1500 light / 2 / 3000.

131570 / 10 Light / 131,570

150 light / 4 / 600

2000 light / 2 / 4000.

4112 / 20 Light / 8234

328 / 100 light / 32800

228 / 60 light / 13,680

474 / 45 light / 2370 / 1896 0 / 2133

924 / 30 light / 27,810

4 of 4000 light

16000.

530,000.) 2.180 000 Ms (4
2 120 000

25°C Labor

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530 0000
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13,250,000

1.892 000) 2.180 000 (1.
1 892 000
288.000.

282

WHP

Give me the Publications of the Parisian of Palestine — If any Articles in the new Persian have been published (Industrial Life Land Tenure) In [illegible] — N.A.V.

Written Jany 21/89

250 000
300
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937 250
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225 000 000